

● PRINTER RUSH ●
(PTO ASSISTANCE)

Application : 10/683,540 Examiner : Nguyen GAU : 2853

From: DP

Location: IDC FME FDC

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DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449		<input checked="" type="checkbox"/> Continuing Data
<input type="checkbox"/> IDS		<input type="checkbox"/> Foreign Priority
<input type="checkbox"/> CLM		<input type="checkbox"/> Document Legibility
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<input type="checkbox"/> DRW		
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[RUSH] MESSAGE: Continuing data is present on the palm
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Cf thank you.

[XRUSH] RESPONSE:

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REV 10/04

STALAGMITE DISSOLVING SPITTOON SYSTEM
FOR INKJET PRINTHEADS

This application is a continuation of 10296793 filed 11/15/2002 now Patent No. 6644778 which is a continuation of 09510906 filed 2/23/2000 now abn.

Field of the Invention

5 The present invention relates generally to inkjet printing mechanisms, and more particularly to a stalagmite dissolving spittoon system that defeats the stalagmite build-up of pigment-based ink residue in a spittoon of an inkjet printing mechanism that prints with both pigment-based ink and dye-based inks, which do not form stalagmites when spit, with spitting being necessary to clear clogged
10 nozzles of inkjet printheads installed in the printing mechanism.

Background of the Invention

Inkjet printing mechanisms use cartridges, often called "pens," which eject drops of liquid colorant, referred to generally herein as "ink," onto a page. Each pen
15 has a printhead formed with very small nozzles through which the ink drops are fired. To print an image, the printhead is propelled back and forth across the page, ejecting drops of ink in a desired pattern as it moves. The particular ink ejection mechanism within the printhead may take on a variety of different forms known to those skilled in the art, such as those using piezo-electric or thermal printhead
20 technology. For instance, two earlier thermal ink ejection mechanisms are shown in U.S. Patent Nos. 5,278,584 and 4,683,481. In a thermal system, a barrier layer containing ink channels and vaporization chambers is located between a nozzle orifice plate and a substrate layer. This substrate layer typically contains linear arrays of heater elements, such as resistors, which are energized to heat ink within
25 the vaporization chambers. Upon heating, an ink droplet is ejected from a nozzle associated with the energized resistor. By selectively energizing the resistors as the printhead moves across the page, the ink is expelled in a pattern on the print media to form a desired image (e.g., picture, chart or text).

To clean and protect the printhead, typically a "service station" mechanism is
30 supported by the printer chassis so the printhead can be moved over the station for maintenance. For storage, or during non-printing periods, the service stations usually include a capping system which substantially seals the printhead nozzles